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Abstract

This New York City school district educational project was designed to provide speech therapy for educationally disadvantaged pupils with severely defective speech who were in attendance in nonpublic schools. The speech therapy was provided by 42 teachers for 7,385 children. Participants met for one-half hour in small therapy groups. The project ran from September 1967 to June 1968, with speech instruction beginning in October. The inservice training of the corrective speech teachers was useful and effective. Nonpublic school teachers, administrators, and parents were satisfactorily informed of and involved in the project. Those pupils whose records were examined in detail did show improvement in speech patterns, although the physical space in which the therapy was carried on was often inadequate and inappropriate. For a report on the 1966-67 project, see ED 026 756. (EM)

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Evaluation of
ESEA Title I Projects
in New York City
1967-68

Project No. 1768

SPEECH THERAPY FOR DISADVANTAGED CHILDREN IN NONPUBLIC SCHOOLS

by Sam Duker

November 1968

PROGRAM REFERENCE SERVICE
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Center for Urban Education
105 Madison Avenue
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SPEECH THERAPY FOR DISADVANTAGED PUPILS IN NON-PUBLIC SCHOOLS

Sam Duker

Evaluation of a New York City school district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10), performed under contract with the Board of Education of the City of New York for the 1967-68 school year.

Educational Research Committee

December 1968

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CHAPTER I

DESCRIPTION OF THE PROJECT

The project was designed to provide speech therapy to disadvantaged pupils in nonpublic schools who have the additional handicap of defective speech. It is a recycle of similar projects carried on during the past two school years. Defective speech in the sense used here refers to speech anomalies that interfere with communication and are severe enough to cause anxiety for the child and render him conspicuous. Such problems include: stuttering, voice disorders, cleft palate, lisping, lalling, and other articulatory defects.

The speech therapy was provided by personnel selected and licensed by the New York City Board of Education. The project description[1] listed the schools to be serviced. Their locations, sponsorship, and teacher assignments are summarized in Table 1. While the original project proposal envisaged serving about 7,000 children, the Board of Education Bureau for Speech Improvement ultimately reported that the recipients of this service were 7,385 children who met for one-half hour weekly. (See Tables 2 and 3.) The therapy groups were small, averaging five to seven pupils, but never exceeding ten. The project ran from September 1967 to June 1968, with speech instruction beginning in October.

The aims of the project, as stated in the project description, were:

1. To improve children's verbal functioning.

2. To improve classroom performance in other skill areas beyond usual expectations.

3. To improve children's self-image.

The crucial factor in addition to the need for speech therapy in determining eligibility of students was educational deprivation; this was determined by whether the school was geographically located in a socioeconomically disadvantaged area. The program included proposals for ongoing training for speech therapists and cooperation with principals, classroom teachers, and parents of children receiving therapy.

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[1]Speech Therapy for Disadvantaged Pupils in Nonpublic Schools, Summary Form, Title I ESEA, (State Education Department, The University of the State of New York, November 1967).

There was a total of 42 teachers filling 27.6 corrective teaching positions. There were 7,385 children, in kindergarten through 12th grade, enrolled in speech therapy. One hundred and eighty-eight nonpublic schools in Manhattan, Bronx, Brooklyn, Queens, and Richmond were to be included; each speech teacher was assigned to more than one school.

Project personnel included the project director who acted as supervisor and one field supervisor in addition to the 42 corrective speech teachers.

There were two types of special speech centers:

1. Speech Center for Children with Severe Speech Defects. Four of these centers were operating four hours per week. The children were instructed in individualized 30-minute sessions. One teacher was assigned to each center. In one of these centers, 22 corrective speech sessions were held; in each of the other three schools there were 16 sessions. A total of 17 children were referred to these centers. (See letter to parents in Appendix B.)

2. Speech Center for Small Schools. In 15 schools, each with a total enrollment of less than 200 pupils, there were not enough eligible children to justify sending speech teachers to the schools. Therefore, provision was made for these children to go to one of 11 schools where speech therapy was being offered. Only four of the 15 schools took advantage of this provision. In the others, parents were unwilling to give their permission for their children to travel to distant schools.

TABLE 1

SPEECH THERAPY FOR DISADVANTAGED PUPILS IN NONPUBLIC SCHOOLS

Number of Schools, Pupils, and Teaching Positions in Program

Borough	School Sponsor	No. of schools participating	No. of pupils enrolled in speech therapy	No. of corrective teaching positions
Manhattan	Archdiocese of New York	51	1856	7.8
	Hebrew Day Schools	8	152	0.5
	Greek Orthodox	1	5	0.0
	Episcopalian	1	22	0.1
	Lutheran	1	5	0.0
Bronx	Archdiocese of New York	19	896	3.4
	Hebrew Day Schools	1	57	0.2
Brooklyn	Diocese of Brooklyn	57	2700	10.5
	Hebrew Day Schools	23	482	1.9
	Greek Orthodox	2	28	0.2
	Episcopalian	4	30	0.2
	Lutheran	3	76	0.2
Queens	Diocese of Brooklyn	9	427	1.6
	Greek Orthodox	2	56	0.2
	Lutheran	1	32	0.1
Richmond	Archdiocese of New York	5	175	0.7

TABLE 2

SPEECH THERAPY FOR DISADVANTAGED PUPILS IN NONPUBLIC SCHOOLS

PROGRAM AS PROPOSED

	Total Schools	Total Participating Pupils	Total Teaching Positions
Manhattan	62	2040	8.4
Bronx	20	953	3.6
Richmond	5	175	0.7
Brooklyn	89	3316	13.0
Queens	12	515	1.9
Total	188	6999	27.6

Archdiocese of New York	75	2927	11.9
Diocese of Brooklyn	66	3127	12.1
Hebrew Day Schools	32	691	2.6
Greek Orthodox	5	89	0.4
Episcopalian	5	52	0.3
Lutheran	5	113	0.3
Total	188	6999	27.6

TABLE 3

SPEECH THERAPY FOR DISADVANTAGED PUPILS IN NONPUBLIC SCHOOLS

BOARD OF EDUCATION - CITY OF NEW YORK
REPORT OF BUREAU FOR SPEECH IMPROVEMENT

Clinical Summary -- Totals & Percentages -- September 1967 - June 1968

Speech Defects	Discharged Corrected	Improved	Not Improved	Discharged Other	Total No. Instructed
Aphasoid Syndrome		3	3		6
Arhythmic Speech					
Cluttering	7	29	4	4	44
Stuttering	83	344	48	51	526
Articulatory Defects					
Lalling	110	361	62	32	565
Lisping					
Dental	58	105	27	10	200
Lateral Emission	176	453	96	56	781
Lingual Protrusion	925	2111	315	195	3546
Infantile Perseveration	14	163	36	12	225
Other Articulatory Defects	265	555	130	84	1034
Cleft Palate Syndrome		18	5	4	27
Delayed Speech and Language	1	63	5	7	76
Dysarthria		2	1		3
Speech Defect Rel. to Hearing Loss		75	13	7	95
Voice Anomalies					
Aphonia		1			1
Denasality	4	25	8	1	38
Abnormal Pitch	11	9	6	6	32
Hoarseness	12	82	25	11	130
Other Voice Anomalies	18	30	5	3	56
TOTAL	1684	4429	789	483	7385

Waiting List	2,936
No. in need of service	10,321

CHAPTER II

EVALUATION DESIGN

CRITERIA

Before outlining the particular design used in the evaluation of the project which is the subject of this report, the evaluators sought to take into account current discussions on the nature of evaluative research.

In recent years there has been an increase in both publicly and privately supported projects to attain a variety of social goals. As these projects proliferated, a need developed for an adequate and research-oriented evaluation of their effectiveness. As a result, much has been written lately about the principles and purposes connected with such evaluations. A recent book by Suchman[1] suggested five categories of criteria according to which the success or failure of a program may be evaluated. This evaluation used the five categories of criteria outlined by Suchman including: effort (the quantity and quality of activity); performance (assessment of results); adequacy of performance (effectiveness in terms of total need); efficiency (relative worth compared with possible alternatives); and process (how and why a program does or does not work).[2] In the section on Findings, the results of this evaluation are presented in terms of each of these categories of criteria.

INSTRUMENTS AND PROCEDURES

The instruments and procedures employed to measure the overall effectiveness of the program being evaluated are described below.

Observations and Interviews

A team of experienced and qualified members of the faculty of the Brooklyn College Education Department carried out a series of school observations throughout the period from March to June 1968. Members of this team visited a total of 34 schools. Visits were made on those days when the speech teacher was scheduled to be present at the school. During these visits the observer interviewed the principal when, as in most instances, he was available; examined samples of the school's pupil personnel records; visited a speech therapy session; and interviewed the speech teacher.

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[1]Suchman, Edward A., Evaluative Research. (New York: Russell Sage Foundation, 1967).

[2]A more detailed description of the five categories is included in Appendix A.

Each of the schools was visited only once. The schools to be visited were selected by the evaluation director. An effort was made to secure a stratified sample in terms of size, sponsorship, and geographical location.

These experienced evaluators were directed to observe the activities carried on in the classes visited and to report their assessment of the effectiveness of these activities in terms of the objectives of the project. Reports of the observers were made in two ways. Written reports were submitted in some cases and oral reports dictated on tape in others.

All reports were examined and analyzed by the evaluation director. In the case of any ambiguity the observer was requested to give a clarifying explanation. The evaluation director also held interviews with the project director assigned to the program by the Bureau of Speech Improvement of the Board of Education, who cooperated fully in obtaining needed data.

Analysis of Speech Clinical Records

The evaluation director and other members of his team reviewed and assessed the materials and forms provided by the Board of Education including the Clinical Record Form of the speech therapists, the Speech Record Card, and the Classroom Teachers' Ratings. (See Appendix B.) The aim was to determine the effect of the program on the remedying of speech impairment.

Examination of Speech Records and Taped Samples of Speech

A sample was gathered of the speech records of 183 children who had speech therapy, in 22 of the schools participating in the program. Of these, 160 children, in 18 schools, had samples of their speech recorded on tape under the supervision of the speech therapist assigned by the Board of Education to their respective schools. In most cases, the tapes were made at the commencement of speech therapy in the fall term and again, in May or June, at the conclusion of therapy. Special scales were developed to evaluate the tapes. (These 18 schools were selected because of the availability of tape recorders; the other four schools were selected on an arbitrary basis by the evaluation director.)

Analysis of General School Records

A sample of school records of pupils participating in this program was collected and copied to ascertain what evidence could be deduced from them concerning general academic improvement, or the lack of it, by children undergoing speech therapy during the school year

1967-68. Because most records were somewhat sketchy and did not, upon analysis, yield any reliable information on the point in question, the effort was abandoned. Actually, it may well be that academic improvement, if it did occur, would not show until the year after the speech therapy had been administered.

Interviews with Parents

One of the principal thrusts of this evaluation was the interviewing of parents of the children involved in this project. These interviews were designed to ascertain the extent of the parent's (usually the mother's) awareness and knowledge of: 1) the existence of the program; 2) the fact that this program was carried on by New York City personnel assigned to the nonpublic schools; 3) the fact that this project was supported by federal funds; 4) the nature and purposes of the program; 5) the procedures employed in carrying on the program; and 6) the extent to which parents were aware of the speech disability of the child. The interviews also sought to ascertain: 7) the extent to which individual parents had come into personal contact with the program through visits with or other communication with Board of Education personnel; 8) the parent's opinions concerning improvement made by the child in his speech as a result of these services; 9) the parent's opinions concerning general improvement in other respects as a result of the speech therapy; 10) the extent to which parents were cooperating with the program by carrying on activities with their children that were recommended by the Board of Education personnel (e.g., helping children practice speech sounds, etc.); and 11) parents' opinions concerning the desirability of the Title I program providing speech therapy services.

A number of decisions had to be made about the manner in which these interviews were to be conducted. There were obvious choices as to: personnel to conduct interviews; the population to be interviewed; the structure of the interviews; the means of making a record of the contents of the interviews; and processing of the interview protocols.

After due consideration the following decisions were made:

Personnel to conduct interviews. It was felt that more meaningful information would be gathered from parents by nonprofessional personnel than by interviewers of professional standing. It was further felt that information would be more readily forthcoming if the interviewers were members of the same kind of community as the one in which the interviewees resided. An additional aim (approved by both the Board of Education and the Center for Urban Education) was

to involve the community in the evaluation, whenever possible. Interviewers were therefore recruited from the neighborhoods in which the nonpublic schools participating in this project were located.

Parent population to be interviewed. It was decided to obtain from the nonpublic school liaison coordinators the names of parents of participating children and to select for interviews those who could be contacted by telephone and with whom interview appointments could be made. This would eliminate those who preferred not to be interviewed.

The coordinators for the Brooklyn Diocese Schools and for the Hebrew Day Schools were most cooperative and helpful in furnishing such lists of parents. The coordinator for the Archdiocese of New York (Manhattan and the Bronx) promised to supply such lists but unfortunately, the names were never furnished. As a result, the sample population interviewed did not have any representatives of parents of children in the participating schools in the Archdiocese of New York.

Structure of interviews. Interviewing procedures can be highly structured (where scale of questions is to be asked uniformly of all interviewees), or they can be nonstructured, open-ended, and nondirective. The writings of Rogers[3] and others have shown that greater benefits are often derived from the latter type of interviewing. It was therefore decided that the interviews should not be closely structured, but planned to give the interviewed parents every opportunity to express their true feelings about the project being evaluated without any formal standardized questions to be asked of every parent interviewed.

Means of recording information gathered in interview. It was decided to use portable tape recorders to make a record of parent responses. This, of course, eliminated interviewer bias in recording and interpreting responses and avoided the necessity of written reports by interviewers. As part of their training, interviewers were instructed not to insist on the use of the tape recorder if there was any objection to it on the part of the parent. Only four interviewees expressed such objection and, in these cases, the interviewer recorded the summary of the interview after leaving the parent.

Processing the interview protocols. Anticipation that there might be considerable difficulty in extracting information from the tapes was not, in fact, justified except for the investment of time needed to listen to the tapes. Since the interviews averaged from 15 to 20 minutes in length, it required that much time to listen to the

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[3]Rogers, Carl R., "Client-Centered Theory." Journal of Counseling Psychology, 3:115-20, 1956

tape and to record the information obtained on a precoded sheet.

Selection and Training of Interviewers

The decision concerning the selection of interviewing personnel required the planning and execution of a recruitment, training, and supervision program.

Recruitment of interviewers. The original intention had been to recruit five persons to serve as interviewers but events reduced this number to four. The process of recruitment is best described by an evaluation staff member who undertook this assignment. The portion of his report dealing with this phase of his activities is reproduced here.

> "Our discussion (with the evaluation director) led me to conclude that this was a genuine effort to harness the 'vast wasteland' of potential among the uneducated and underprivileged in such a way as to promote dignity and a reassessment of self worth. The theory is a take-off from the point of view that employability qualifications are most often overstated and nonrelevant to tasks to be performed. My search began among the black and Spanish-speaking people of those sections of Brooklyn where nonpublic schools in this project were located. I wished to find people who wanted to work on a part-time, short-term basis, and whose education was minimal. Problems confronting me were as follows: 1) people of limited skills are adamant in their rejection of their lack of skills and formal education as relevant unless they have made some distinctive achievement which enables them to taunt the establishment and others with their prowess to overcome. It follows that they are too busy to be available; 2) many of the prime potential persons were suspicious of the 'for realness' of the pay for someone with little formal education; 3) making contact with individuals who were immediately available and amenable to accept the work.
>
> "Early contacts were made with persons who were privy to information about the type of person being sought. In at least two cases the persons contacted were active 'militants' and were so suspicious and protective that they wished to make decisions for people without making available to potential workers the chance to have this work. My own ethnic kinship had no real impact on these key people. I then turned to the churches and followed numerous leads furnished by the ministers. Here I met with less hostility due to the referral. I continued contacting people through friends and neighbors, making many phone calls.

"Two persons contacted through the church seemed to be interested. The younger of the two was already employed but thought she might like to do this as a second part-time endeavor, but, due to events at her regular job, had to decline. The second person accepted, was trained, and persisted to the termination of the project. She was a mature woman who had done some work in a community agency, including interviewing, and had either contact or experience with a variety of people. Three other persons (friends who wanted work) were contacted, by means of unofficial channels, in a community agency. One of these persons was not dynamic and this work was just beginning when she was fortunate enough to have a full-time position offered. She accepted it and found this part-time work to be too taxing since it would have to be done evenings and she lacked suitable means of transportation. The second person wished to do work and continued until the last few weeks when she withdrew due to a combination of pressures from her spouse and some social obligations. The third person persisted to the completion of the project.

"In each case when I received a lead I made a phone call and followed it by an interview visit to the home where we had an employment chat. I felt that in their natural habitat I would be able better to relate and to appraise the individual and his potential. The situation presented a minimum of uneasiness to either of the parties concerned and I was able to establish rapport readily. My presentation was straightforward and honest so I was able to answer almost all questions in a satisfactory manner."

The training of the four interviewers. The indoctrination of the interviewers recruited was carried on at Brooklyn College for a period of three successive days. The training was conducted by a senior member of the Brooklyn College faculty with the assistance of other professional personnel members of the Brooklyn College Department of Education faculty. It consisted of five stages.

a. A thorough explanation of the nature of this project, its purposes, aims, and procedures, was presented to the interviewers. Questions about it were answered and the understanding of the interviewers was tested by a discussion with them.

b. A thorough explanation was presented about the kinds of information sought from the interviewees. Again questions were answered and the understanding of the interviewers was tested.

c. The interviewers were given thorough training in the operation of portable tape recorders. This was followed by supervised practice which reinforced the explanations and directions given.

d. Simulated interviews were then conducted by each prospective interviewer using her colleagues as interviewees. These interviews were played back and discussed by the instructor as well as by the interviewer's colleagues. This was followed by simulated interviews with "outsiders," largely Brooklyn College faculty members, first in quiet surroundings and later in a busy, crowded and noisy student cafeteria. Again the tapes were played back and discussed to bring out the shortcomings, as well as the merits, of the simulated interviews. The last training session was held in the home of one of the interviewers, where simulated interviews were held with cooperating neighbors. Again the tapes were played back for the entire group of four and discussed.

e. The esprit de corps of the interviewers was increased by a luncheon at the Brooklyn College Student Center just prior to the last training session at which the interviewers were presented with certificates stating that they had successfully completed a three-day course in interviewing.

Supervision. The interviewers were called back for several further training sessions after each full week of the first three weeks of interviewing, at which time tapes of the actual interviews were played for the entire group and discussed by the interviewers, as well as by the instructor and other college personnel who were present.

Very close contact was maintained with the interviewers by telephone after these regular review sessions were terminated.

CHAPTER III

FINDINGS AND RECOMMENDATIONS

FINDINGS

The findings encompass two questions: how the program was carried out, and what was the impact on the children receiving speech therapy.

HOW THE PROGRAM FUNCTIONED

Speech Therapists

All the personnel recruited to perform the speech therapy services in the nonpublic schools held licenses issued by the New York City Board of Education which authorized them to perform equivalent services in the New York City public schools. Each of them had completed college-level courses in the area of speech therapy ranging from advanced undergraduate-level courses to graduate-level courses. The members of the evaluation team reported, as a result of their observation, that the therapists were sincerely dedicated, involved in their task, and conscientious in the performance of their duties.

The use made of materials provided by the Board of Education, by the nonpublic schools, and, in some cases, by the therapists themselves, was rated as generally effective by the members of the observation team. (For an inventory form of materials furnished by the Board of Education, see Appendix B.) Such inadequacies as were noted will be indicated more specifically, further on in this report.

One problem involved occasional unavoidable absences by the therapists. At first glance the policy of not providing substitutes seems regrettable but, on considering the nature of the relation between the therapist and the children receiving help and the necessity of continuity, this was deemed a wise policy.

The duration of the average speech session, one-half hour, seemed quite short considering that sessions were held only once a week.

The fact that referrals could be made to other agencies and to the Speech Center for Children with Severe Speech Defects, when necessary, was considered a valuable aspect of the program and rendered the speech therapist's work more effective.

The cooperative consultations between remedial reading teachers, who were assigned to the schools as part of another Title I project, and the speech therapists, was a valuable procedure because

common problems often existed in children assigned to these areas for help. Unfortunately, in some instances, the same space was used by both speech teacher and remedial reading teacher on alternate days, so that this liaison was often difficult to establish.

An integral part of this project was the ongoing teacher training of speech therapists conducted by the project coordinator and her staff. Twenty-one all-day training sessions were held during the year. While not all teachers attended all sessions, each did attend at least one per month during the period from October to May.

Although no objective measure is available to assess the value of the in-service training program for the speech therapy teachers, it is the opinion of this evaluator, based on general educational principles, that it was a valuable one. This would be true even if nothing other than an opportunity to hear reports of colleagues and of supervisors had taken place. It was indicated, in interviews with the project director, that additional help was given the teachers by pointing out ways in which problems that had been encountered could be dealt with.

The speech teachers also met with school staff. In 52 schools, they addressed meetings to which the entire staff was invited. In 74 schools, speech teachers addressed groups of parents; these meetings were supplemented by individual conferences. Furthermore, parents received letters inviting them to visit speech clinics. (See letter in Appendix B.)

Supervision

The supervisory services rendered by assigned personnel from the Bureau of Speech Improvement must be rated as excellent, given the available personnel. In the section on the findings on records, note is made that such records have not been kept in as adequate a manner as would be desirable. Closer supervision of this activity would be worthwhile, were personnel made available to take on this task.

Principals of Nonpublic Schools

Stress was also placed on cooperation with the principals and classroom teachers of the nonpublic schools, as well as with the parents of children receiving speech therapy. A meeting was held for the principals of the serviced nonpublic schools in the autumn. This was followed by eight meetings to which all principals and classroom teachers were invited. These consisted of four series of two meetings each, three series being held in the afternoon and one series being held in the evening. A total of 74 principals and teachers attended these eight meetings.

During the school observations, it became apparent that, while there was relative indifference to the program on the part of a few principals, most principals had informed themselves thoroughly about the speech-therapy aims and procedures. The cooperation of most nonpublic school principals must be categorized as excellent.

With a few minor exceptions all principals with whom members of the observation team spoke expressed themselves as being highly pleased with the speech-therapy program under Title I. Stressed most often was the fact that this project provided needed services to children to whom such services would otherwise be unavailable. The budgetary and personnel situation of these schools simply did not permit rendering of services to this extent in speech therapy.

In categorizing the speech therapy program, 52 principals in the Archdiocese of New York who were queried by the nonpublic-school personnel in that jurisdiction expressed themselves as follows:

Excellent	13	Helpful	3
Very Good	8	Satisfactory	5
Good	12	Fair	1
Very Fine	3	Not Scorable	7

Three principals felt that the half-hour period once a week was insufficient, and one principal felt that there had been too many changes in speech therapist personnel.

In this connection it must be noted that the problem of absences and of turn-over of personnel because of illness or other causes was minimal. In only one case (two schools on Staten Island) were services not rendered as planned. In this case the planned five hours a week were reduced to one hour per week. In the few other instances of illness, immediate replacements were secured.

Classroom Teachers of the Nonpublic Schools

Generally good cooperation between nonpublic-school classroom teachers and speech therapists was reported by members of the school observation team. In four cases it was reported by the observer that there was an attitude of indifference concerning the speech therapy on the part of the classroom teacher. While it is understandable that teachers of classes with large registers find it difficult to add another item to their concerns, it is, nevertheless, incontrovertible that the effectiveness of the speech therapy cannot help but be affected by this indifference. The failure of many classroom teachers to fill out the blanks concerning their appraisal of their pupils' speech is indicative of this indifference.

The supervisors of the project certainly did their best to enlist the interest and cooperation of the classroom teachers. Four series of two meetings were held in November 1967, to orient the classroom teacher to this program. As previously noted, not all of the classroom teachers who had projects in speech-therapy work invested the necessary time and energy to attend all of these meetings.

Parents

An analysis of the tapes on which interviews with 40 parents were recorded revealed the following information concerning parents' awareness of the speech therapy being given their children in the Title I project (Table 4).

TABLE 4

RESPONSES OF PARENTS OF CHILDREN RECEIVING SPEECH THERAPY IN NONPUBLIC SCHOOLS
N=40

Parent Response, or Awareness of:	Affirmative Response	Negative Response	Unaware of Request for Help or Cooperation
1. Existence of Speech Therapy Program	30	10	-
2. Personnel Assignment by N.Y.C. Board of Educ.	26	14	-
3. Program Financed by Federal Funds	12	28	-
4. Nature of Speech Therapy Program	29	11	-
5. Procedures of Speech Therapy Program	25	15	-
6. Speech Handicaps of Child	23	17	-
7. Contact with Therapist (Personal or Communic.)	22	18	-
8. Opinion as to Child's Speech Improvement	23	17	-
9. Opinion as to Child's Gen. Improvement (result of speech therapy)	8	32	-
10. Degree of Cooperation with Therapist	11	20	9
11. Opinion on Desirability of Program	33	7	-

The finding seems justified that the effort made to inform parents about the speech program was rather effective. At least some of the negative answers can be accounted for by the fact that some parents feel that the need for speech therapy by their children is an adverse reflection on them, and thus they deny any knowledge of anything having to do with this area. Certainly the effort to acquaint parents with the program was made. Parents were notified of the selection of their child for speech therapy work by the speech therapist as well as by the nonpublic school administrator. Parents were also invited to attend an explanatory meeting and a therapy session. (For forms used see Appendix B.)

Selection and Screening

The screening procedures used in deciding which children of those referred by classroom teachers should be selected for speech therapy seem to have been carried on with competence and efficiency in accordance with usual Board of Education practice. The principal criterion used to select pupils who had the greatest need for speech therapy was pupil performance on the P.A.T. (Photo-Articulation Test) which was administered by the speech therapist. (For forms used see Appendix B.)

Records of Speech Therapy

A number of forms were provided to the speech therapist by the Board of Education for the purpose of making a record of the speech status and improvement, or lack of it, of their pupils. There is a wide variation in the degree to which these records were completed. The importance of keeping such records conscientiously and clearly is difficult to overemphasize.

Taped samples of speech at the beginning of therapy, and in June 1968, were made in a relatively small number of cases (160 out of 7,385). The criterion was the presence of a tape recorder at the school. Since such a taped record is the only objective instrument available that can be fully evaluated by an expert who is not part of the program, it is apparent that, in most cases, the work of the speech therapist cannot really be evaluated in an objective manner by an outside evaluator.

A variety of data were collected for the aforementioned sample of 160 children in the remedial-speech program. The principal reason for the selection of these students was the availability of recorded speech tapes. In addition to these tapes, data on the pupil's grade level, teacher, clinical speech record, and teacher evaluation of the pupil's speech were collected, as were interviews with some of the speech therapists.

Space

Space provisions in which the speech therapist had to work varied. While it is understandable that in a crowded school there may not be any suitable space, the inadequacy of space provided in some schools severely handicapped the therapist. In one instance a portion of the library was assigned for this purpose. Obviously, the noise and activity going on in other parts of the room assigned for library purposes seriously affected the possibility of effective speech therapy. In other cases the amount of space was inadequate, and in still others the temperature conditions were bad. It is easier to state this finding than it is to suggest a remedy. In any event, the speech therapists are to be commended for their ability to make the best of an undesirable space situation.

EVALUATION OF EFFECT OF THERAPY ON CHILDREN

The problem of primary concern in the evaluation of this project was, "Did the therapy given to these children help to remediate their speech disorders?" There were 29 different types of speech disorders listed as being present in the sample. The general problem of the causes of speech disorder is beyond the scope of this evaluation. Another limitation was that there was no attempt to regulate the kinds of therapy offered or to develop a contrastive analysis of different types of therapy for the same disorder. In short, the principal aim was to discover whether this program of exposing children with speech impairments to treatment by licensed speech teachers, for a maximum period of 40 weeks for one-half hour per week, would improve their spoken English.

The 160 children sampled came from 22 New York City nonpublic schools, located in five boroughs. Half the sample was male and half female. The median grade level of the sample was grade four, nearly all the students in the sample being in grades three through six.

The Speech Clinic card, which is found in the speech file (see Appendix B), contained information on the pupil's grade level, the date on which he commenced speech therapy, the type of speech impairment, the degree of impairment, and progress made during the therapy period. In 17 of the 160 cases the pupil had undergone speech therapy the year before this project was initiated. Two of these pupils had more than a single speech problem.

The speech file also contained the classroom teacher's evaluation of the pupil's spoken language. The classroom teacher evaluated the pupil once on six categories on a ranking scale, which ran from 1 to 6, with the lowest number indicating poorest rating

and the highest number indicating the best rating. Teachers ranked the pupils on: 1) skill in communication; 2) organization, purpose, and point; 3) wealth of ideas; 4) fluency; 5) vocabulary; and 6) quality of language. Finally there was to be found in the speech file the set of tapes, referred to previously, that were collected by the therapists on the sample of 160 students.

Findings on the Clinical Record Form

Table 5 contains a list of the kinds of speech problems enumerated on the Clinical Record Form found in the speech file kept by the speech therapist in each school to which she was assigned. This is in accord with the kind of speech defects listed in the summary prepared by the Bureau for Speech Improvement. (See Appendix B.) The range of problems was great and encompassed nearly all types of speech disorders, from lisping, to stuttering, to articulation. The categorization of these defects in descriptive rather than etiological terms follows the table.

TABLE 5

CLASSIFICATIONS AND TYPES OF SPEECH IMPAIRMENTS OF THE SELECTED SAMPLE OF PUPILS UNDERGOING SPEECH THERAPY

Articulation	Voice
Articulation (alone)	Hoarseness
Articulation - delayed	Inaudible voice
Articulation - foreign	Infantile perserveration
Articulation - lateral emission	Nasal voice and denasal
Articulation - lingual protrusion	Voice - high pitch
Articulation - lall	Hearing
Articulation - substitution, distortion, omission	
Lalling - poor muscular tone	**Other**
Lalling - sound	Stammer
Lalling - distortion, omission of l and r sounds	Stutter (alone)
Lalling - distortion of r sound	Stutter - lingual protrusion
Lisp - dental	Stutter - primary (subject unaware)
Lisp - lateral emission	Stutter - transitional
Lisp - lingual protrusion	

Voice Defects

Defects in pitch: the voice is too high or too low; it is inappropriate for the age or sex of the individual; the voice is inappropriate to the material being spoken; the voice is patterned; too little variation in pitch; or inappropriate changes in pitch.

Defects in intensity: the voice is too loud or too soft; inappropriate changes in volume; volume inappropriate to the material being spoken.

Defects in quality: resonance; the voice is muffled; the voice is nasal; the voice is denasal (lacks nasal resonance on m, n, or ng); the voice is hoarse; the voice is husky, metallic or breathy.

Articulatory Defects

Sound substitutions: one sound is substituted for another such as w for r, w for l, sh for s, t for k, etc.

Distortions: one sound is approximated for the correct sound, for example, the r may approximate the w but is not actually a w sound.

Omissions: sounds are omitted, for example, initial consonants.

Rhythm Defects

Defects in rate: speech is too fast; too slow; inappropriate to the material being spoken; there is little variation in rate of speech.

Defects in stress: failure to employ increased force of breath in the production of some syllables as compared to others; for example, the intensity or lessening of intensity placed on syllables within words and on words in sentences.

Defects in fluency: repetitions of words and sounds; prolongations of sounds; blocks on sounds or words.

Language Defects

Oral reading deficiency: inability to read sentences well.

Deficiency in choice of words: limited vocabulary; failure to express ideas well; failure to express many ideas.

Intelligibility Defects

These defects relate to the degree to which any of the defects listed above interferes with a listener's understanding of what the child said.

In the face of the wide variety of speech impediments it is difficult for the speech therapist, who essentially moves from school to school during the week, to render effective treatment. Most therapists work well with a wide variety of speech disorders, but work most effectively with certain impairments in which they have specialized. In this program the itinerant speech teacher was at a disadvantage in being unable to treat problems within the range of his particular specialty. Instead, he had to treat students with all types of speech difficulties. On the average the therapists reported at the outset of therapy that the degree of impairment was severe with a mean of 1.6 on a scale running from 1 to 6 where 1 is poor and 6 is good. (This scale appears in Appendix B.) Speech therapists also reported that progress in therapy was good on the average. The mean was 5.3 on a six-point scale where 1 is poor and 6 is good.

Seventeen students in the sample had been given speech therapy during the previous school year. In the therapists' opinion their impairment seemed to show little improvement this year. The mean degree of impairment for these 17 pupils for the first year was 1.3 and for the second year, 1.6. Factors other than therapy may be responsible for the slight difference between these ratings. Frequently, ratings were made by different teachers for each student in the program unless there was more than one pupil in the same class. Mean progress scores are given as 5.2 and 5.3 at the end of the two years respectively. Again, the difference is probably not due to therapy but to other factors. Usually it was recommended by the clinician that most of these pupils continue receiving therapy during the next school year even though the change in degree of impairment was not perceived by the therapist as being great. We do not know, of course, against what set of standards the speech therapists were rating the students. Was it against the statistical norms in the population, or against an absolute standard of how a person should talk?

Findings on Classroom Teachers' Ratings

At the end of the year classroom teachers were asked to rate the pupils on six categories of spoken language on a scale that ran from 1, which is poor, to 5, which is good. (This scale appears in Appendix B.) Table 6 shows the means and standard deviations of the pupils who were rated in these categories. Only 145 of the 160 pupils were rated on these scales. However, there is no reason to believe that there is a bias between the rated and unrated groups.

Table 6 shows that usually the teachers tended to find the pupils in the average range in all six of these categories. They also found that the pupils' means in vocabulary and fluency were lower than in the other four categories; however, the difference was slight. In describing the skill of the children in communication, their organization, fluency, vocabulary, purpose and point in speaking, their wealth of ideas in speech, and the quality of their language, the teachers were unable to discern a distinctive difference in these qualities. The average ratings received by the students on all scales tend to confirm the results reported by the therapists. In short, the teachers evidently felt that the pupils were sufficiently capable in these particular skills when compared with the average child.

TABLE 6

MEAN CLASSROOM TEACHER RATINGS AT YEAR END ON SCALE OF QUALITY OF SPOKEN ENGLISH FOR A SAMPLE OF 145 PUPILS

Scale	Mean	Standard Deviation
Skill in communication	3.3	1.00
Organization, purpose, and point	3.3	.94
Wealth of ideas	3.2	1.20
Fluency	3.1	1.10
Vocabulary	3.0	1.00
Quality of language	3.3	1.00

The matrix of intercorrelations of the Teacher Evaluation of Language Scale is presented in Table 7. This table seeks to answer the question: "How did the ratings of a pupil on a particular one of the six scales relate to the ratings received on the other scales?"

TABLE 7

INTERCORRELATION MATRIX OF TEACHER RATINGS ON SCALES OF QUALITY OF SPOKEN ENGLISH[a]

N = 145

Scale	1	2	3	4	5	6
1						
2	.623					
3	.679	.599				
4	.591	.565	.649			
5	.636	.598	.639	.624		
6	.507	.540	.614	.383	.599	

[a]All values are significantly different from zero at the .01 level.

All the correlation coefficients in the table were significantly different from zero, with the range of common variance between any two scales going from 14 per cent to 46 per cent. In conclusion, the teachers seem to indicate that a student possessing one of these skills will possess all these skills, but not to the same degree. Enough variation exists in the correlations to indicate that the teachers were sensitive enough to recognize differences in these skills when they existed.

Unfortunately, there were no data available from which comparisons could be made between the pupils who received remediation and those who did not, because time did not permit the selection of a matched control group. A control group would have given a better picture of how the teacher viewed these pupils in the perspective of her entire class. We can, however, conclude that if the scales could be considered items on a test of quality of spoken English, given the intercorrelations that were found, the instrument was reliable. In light of the limited data, no statement can be made concerning the validity of the instrument.

Findings on Taped Speech Record

In the 160 cases where tapes of student performance at the start of therapy and at the end of therapy for the year were collected, an expert in speech therapy with many years of experience and responsibility in this field was selected to evaluate these tapes. She developed a set of 90 millimeter scales based on the format of the Fels Parent Behavior Scales described by Baldwin and others.[1] This scale is a graphic device on which a rating may be placed at any point. (See Appendix B.)

The scale contained thirteen items which were: 1) pitch; 2) intensity; 3) quality; 4) sound substitution; 5) distortion; 6) omissions; 7) rate; 8) stress; 9) fluency; 10) oral reading; 11) choice of words; 12) fluency of ideas; and 13) intelligibility. Each student's tape was rated by applying to the expert's placed point a standard measure of from 0, poor, to 90, which meant very high. Each of the variables was rated both for pre-tapes and post-tapes.

The tapes contained different kinds of material. Some of the children read a selection, others read sentences, some answered questions, and so on. This approach, which was designed to expose the pupils' primary disorder, also has major weaknesses. For example, the ratings on rhythm and possibly articulation may have been affected because all the sounds of the English language might not have been used in all these cases. In addition to these shortcomings, our expert speech therapist noted the following limitations of the data: the intensity rating of the tapes might have been affected in terms of the setting of the recordings or the mechanics of just how far away from the microphone the child was. The quality rating might have been affected by a child's having a cold at the time that his speech sample was taken. Since spontaneous speech was not used on most tapes, the ratings of language problems were undoubtedly affected. Reading problems would affect the rate, stress, and fluency ratings. Such reading problems probably affected the intelligibility rating as well, since this rating reflected the total effect of communication.

The post-therapy tapes were undoubtedly influenced by the amount of therapy. Since not all children were exposed to the same number of remediation sessions, some differences could be attributed to this time element. The dates of the pre-tests ranged from September to February. The post-tests were administered in May or June. Therefore, in some cases the time elapsed between pre- and post-tapes could have been as much as ten months or as little as three months. Again,

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[1] Baldwin, Alfred L. and others, "The Appraisal of Parent Behavior," Psychological Monographs 63: 1-26, 1949.

absences from therapy sessions or broken teacher appointments could have caused the amount of therapy received to vary from child to child.

The kind of speech problem that the child had would also influence the effect of the therapy. Often, if the problem is slight, it is difficult for the child to see the need of remedial therapy which might result in a minimal change in his speech pattern from pre- to post-tape. On the other hand, if the problem is a severe one, progress may be measured. These factors must be taken into account in the evaluation of the ratings. Generally the post-tapes were recorded with readings and spontaneous conversations reflecting more poise. The tapes were well organized and the rater knew whether a given tape was an earlier or a later tape. Thought was given to blind analysis but it was felt that such analysis would have little added value because it would only serve to evaluate the rater, whose competency is already well established.

In spite of the foregoing limitations of the data there are important things to be learned from this taped material. Analysis of the mean scores will indicate the level of performance achieved on each of these scales. Also, comparison of each of the items will indicate weaknesses. Pre- and post-tape comparisons of the means will indicate the degree of change as a result of the therapy. Correlations of these scores will evaluate the relationships between the items, and the areas of gain.

Table 8 presents the mean scores and standard deviations of the items for the initial tape sample.

The pre-test means on the tapes indicate that there are significant differences among the items on the scale. There were few errors of omission in taped speech. However, the means on the quality and intelligibility scales were extremely low. Rate, stress, oral reading, choice of words, and fluency of ideas, which can be considered a literate or reading-related component of speech, showed similar mean scores; these did not differ significantly. The pupils received relatively high scores on the intensity item, indicating some degree of voice control. Again it must be mentioned that speech samples from normal children might have aided in the interpretation of the data. The children did tend to distort sounds, as evidenced by their relatively low mean score. However, pitch and substitutions of sound show somewhat better performance. By and large the mean ratings on the scales were below the midpoint of 45, which indicates that, with the exception of a few scales, the average initial performance of these pupils is not to be considered normal since previous experiences with the scale indicate normal would be approximately 45. With the exception of the omissions scale, the pupils demonstrated on the pre-tape that there is a great deal of room for improvement in the spoken language of these children.

TABLE 8

MEANS AND STANDARD DEVIATIONS OF INITIAL TAPED SPEECH SAMPLES

Item	Mean*	Standard Deviation	N
Pitch	36.4	9.9	157
Intensity	40.5	7.2	160
Quality	26.6	11.1	160
Sound substitution	37.0	13.0	160
Distortions	31.4	8.7	160
Omissions	71.2	23.4	160
Rate	35.2	10.1	160
Stress	33.2	8.9	160
Fluency	35.0	10.2	158
Oral reading	33.1	10.6	136
Choice of words**	33.5	8.1	16
Fluency of ideas**	32.5	7.0	16
Intelligibility	29.6	8.9	160

* Mean ratings on a scale that runs from 0, which means poor, to 90, which means good.

**These items were rated only in cases in which impromptu speech was also recorded.

$F = 2.54$, significant at .05 level.

Table 9 presents the means and standard deviations on the post-tapes. The means on those scales that reflect a high component of sound and literate or reading-related speech (i.e., pitch, intensity, sound substitution, rate, stress, fluency, and oral reading) were all higher than the means on those scales that have a high component of voice and diction (i.e., quality, distortions, choice of words, fluency of ideas, and intelligibility).

TABLE 9

MEANS AND STANDARD DEVIATIONS OF THE TAPE SCALES FOR THE POST-TEST

Scale	Mean	Standard Deviation	Number of Cases
Pitch	39.5	6.8	157
Intensity	43.2	4.4	160
Quality	32.5	8.0	160
Sound Substitution	40.9	10.7	160
Distortions	36.2	5.4	160
Omissions	72.7	20.0	160
Rate	40.2	5.5	160
Stress	38.4	6.6	160
Fluency	41.3	4.7	158
Oral reading	39.4	7.3	136
Choice of words	36.4	6.2	16
Fluency of ideas	35.9	6.2	16
Intelligibility	36.7	5.7	160

F = 2.85, significant at the .05 level

Again, omissions of words or sounds were relatively minor. On the items that composed the sound and literate speech components the pupils were able to approach the midpoint of 45 which indicates that, while they may be below "normal" in these areas, the gap is not great and could be closed very readily. On the other hand, the voice component items are still well below the midpoint of 45, which reflects the various speech disorders that this population had. It is in this area of voice components that one finds the greatest need for work and remediation if satisfactory results are to emerge from therapy.

Table 10 presents the mean gain scores in the various scale items. The gains ranged from 7.1 to 1.5 points.

TABLE 10

DIFFERENCES (GAINS) FROM PRE- TO POST-TEST
IN SCALE AND "t" VALUES ON TAPE SCALES

Scale	Gain in Scale	"t"	N
Pitch	3.1	3.27[a]	157
Intensity	2.7	4.07[a]	160
Quality	5.9	5.49[a]	160
Sound substitution	3.9	2.94[a]	160
Distortions	4.8	5.96[a]	160
Omissions	1.5	.62	160
Rate	5.0	5.53[a]	160
Stress	5.2	5.96[a]	160
Fluency	6.3	6.05[a]	158
Oral reading	6.3	5.72[a]	136
Choice of words	2.9	1.23	16
Fluency of ideas	3.4	1.58	16
Intelligibility	7.1	8.51[a]	160

[a]Significant at the .01 level

In all but three areas the gain in score was significant and probably due to therapy. The three areas in which the gains could have been caused by chance factors are omissions, choice of words, and fluency of ideas. In the omissions score the mean gain was 1.5 points. However, both the initial pre-test score and the post-test score were extremely high. A high score probably allowed little room for much improvement in this variable. The other two scale items are part of literate speech, and in all probability the therapists were more interested in, and concerned with, sound and voice control than with diction or dialectic problems per se. It can be stated with a high degree of probability that the gains in the other 10 scales indicate a marked improvement in speech. Without a comparison with a control group it is impossible to say how much of this gain is due to therapy and how much is due to maturation or some other systematic factor. However, the undeniable conclusion is that the pupils did show gains in speech.

The intercorrelations of the pre-test scales are shown in Table 11. Pitch, intensity, quality, sound substitution, distortions, and omissions show high intercorrelations and represent a cluster of variables that may be called voice or sound control. Rate, stress, fluency, oral reading, and fluency of ideas represent another cluster that could be called literate or reading-related speech. Intelligibility cuts across both clusters and could be due to dialect differences. Choice of words showed significant relationships to one variable in the first cluster and one in the second cluster, and to intelligibility. In short, the tapes can be said to measure four components of speech: voice and sound control, literate speech, intelligibility, and diction. These four principal variables define the structure of oral speech as seen by our expert.

The speech therapists tended to try to improve the voice, sound control, and intelligibility factors, while they did not press to improve the literate speech or diction pattern. This is what might be expected in a speech therapy situation. The results are in line with most of the present knowledge about what can be expected as a result of the speech therapy environment.

Table 12 presents the intercorrelations on the post-test items. Again the components of speech just described are confirmed. High intercorrelations are found between pitch, intensity, quality, sound substitution, distortions, and omissions, which constitute the sound voice cluster. Rate, stress, fluency of ideas, and oral speaking represent the literate speech components. Intelligibility cuts across all areas of speech, and choice of words seems to represent a separate variable. The magnitude of the correlations is lower, indicating that the internal consistency of the ratings may have fallen if the tapes were considered a single test with one test score.

TABLE 11

INTERCORRELATIONS OF PRE-TEST*

Scale		1	2	3	4	5	6	7	8	9	10	11	12	13
Pitch	1													
Intensity	2	.495**												
Quality	3	.697**	.519**											
Sound subst.	4	.205*	.236**	.263**										
Distortions	5	.297**	.342**	.356**	.735**									
Omissions	6	.213*	.379**	.174*	.593**	.689**								
Rate	7	.051	-.005	.054	-.153	-.100	-.120							
Stress	8	.120	.090	.186*	.002	.098	-.044	.698**						
Fluency	9	-.034	-.029	.011	-.143	-.086	-.117	.796**	.708**					
Oral reading	10	-.080	.041	.044	-.007	.084	-.114	.526**	.606**	.662**				
Choice of words	11	.114	.107	-.319	.247	.285	.417*	-.066	.131	-.001	-.087			
Fluency of ideas	12	-.048	.036	-.259	.254	.125	.184	.343	.379*	.368*	-.302	.669**		
Intelligibility	13	.309**	.283	.338	.507**	.689**	.568**	.253*	.454**	.288**	.389**	.530*	.525*	

*Sample sizes change between each set of variables
**Significantly different from zero at the .01 level
*Significantly different from zero at the .05 level

TABLE 12

INTERCORRELATIONS OF POST-TEST*

Scale		1	2	3	4	5	6	7	8	9	10	11	12	13
Pitch	1													
Intensity	2	.526**												
Quality	3	.619**	.491**											
Sound subst.	4	.101	.148	.240*										
Distortions	5	.212*	.264**	.305**	.619**									
Omissions	6	.061	.153	.101	.429**	.673**								
Rate	7	.066	.109	.201*	-.026	-.123	-.224*							
Stress	8	.100	.139	.245*	-.005	-.043	-.202*	.759**						
Fluency	9	-.033	.079	.081	-.045	-.100	-.145	.811**	.713**					
Oral reading	10	.053	.092	.151	.127	.026	-.104	.689**	.630**	.821**				
Choice of words	11	-.224	-.087	.750**	.448*	.310	.043	.467*	.290	.131	.000			
Fluency of ideas	12	-.173	-.066	-.151	.344	.268	-.016	.487*	.330	.296	.000	.913**		
Intelligibility	13	.334**	.437**	.391**	.442**	.694**	.508	.185*	.287**	.238*	.490**	.405*	.351	

*Sample sizes vary for each set of variables
** Significantly different from zero at the .01 level
* Significantly different from zero at the .05 level

By and large, this analysis suggests that the scale has consistency and is an excellent way of rating oral speech sounds.

This becomes even clearer in Table 13 which presents the intercorrelations between the pre- and the post-test for each item.

TABLE 13

INTERCORRELATIONS OF SAME ITEMS ON THE TAPE SCALE FOR PRE- AND POST-TEST*

Scale	r
Pitch	.783
Intensity	.505
Quality	.658
Sound substitution	.870
Distortions	.819
Omissions	.942
Rate	.544
Stress	.606
Fluency	.532
Oral reading	.685
Choice of words	.721
Fluency of ideas	.735
Intelligibility	.523

*All correlations are significantly different from zero at the .01 level.

It is reasonable to consider that the student was helped in a positive direction on all scales rather than in a random fashion. It can be concluded on this basis that the speech therapist tended to direct the situation to emphasize voice and sound control problems.

FINDINGS AND CONCLUSIONS OF FIVE CATEGORIES OF EVALUATIVE CRITERIA

An examination of the foregoing findings in the light of the five categories of evaluative criteria set forth in the section on the evaluation design leads to the following findings and conclusions.

1. Effort. The input of activity into the project was very large. Speech therapy work was administered to over 7,000 individual nonpublic school pupils in 173 schools and services at small school centers were made available to 15 other schools of which 11 did not accept the opportunity afforded. As is shown in the earlier part of the findings, the quality of the services performed was excellent. It is true that there was an additional number of 2,936 children in need of speech improvement who were not served but placed on a waiting list.

2. Performance. While the assessment of the results of the efforts expended cannot be made with equal certainty, there is ample evidence that a change was effected in the case of a substantial number of children. The Bureau of Speech Improvement in their analysis (see Appendix A) shows correction of speech disorders of 1,684 children and improvement in 4,429 children's speech. The analysis here of the speech improvement of the 160 children for whom taped samples of speech were available also shows substantial improvement.

3. Adequacy of performance. As has already been noted, 7,385 children received corrective speech work, while 2,938 additional children in need of such work were not serviced but placed on a waiting list. This means that service was available to 72 per cent of those named as needing it. This degree of performance seems adequate under the circumstances.

4. Efficiency. The degree to which this criterion was met is extremely difficult to assess. The technologies used do not appear to be startlingly new, but on the other hand they were well within the standards set in terms of present knowledge. As has been noted, all the teachers involved had had training in corrective speech work. It is doubtful whether a sufficient number of people with advanced training in this field would be obtainable, and there is no hard evidence that such highly trained personnel would accomplish substantially more than was accomplished here. In view of the cost of such highly trained personnel, it is safe to draw the conclusion that on a dollar basis the efficiency of this project was at a satisfactory level.

5. Process. An examination of the process involved in this project leads to the conclusion that a wise policy of personnel selection was made, that overall the recipients of the services offered by the program were well selected, and that the number serviced was adequate in terms of the total need. It is possible that more concentrated services rendered to fewer pupils might have resulted in more substantial improvement in individual cases. The evidence of the "side effects" of the speech improvement in such matters as academic improvement was lacking, as already noted, and no judgment can therefore be made concerning this aspect of the program.

RECOMMENDATIONS

1. The recycling of this project is justified by the results of this past year's effort. Consideration should be given to providing more intensive treatment for longer periods of time. This might increase the amount of improvement for individual children.

2. It is strongly recommended that in any recycling of this project, taped samples be secured by the speech therapist assigned by the Board of Education for all children being subjected to speech therapy both at the beginning and at the end of the therapy. Arrangements should be made to obtain speech samples of children who are diagnosed as not needing speech therapy so that gains due to maturation and other factors may be differentiated from those attained as a result of therapy.

3. In continuing this program, more stress should be placed on good record keeping and this process should be more closely supervised.

4. The present effort to involve parents and classroom teachers in the speech therapy program should be continued.

5. It is further recommended that serious consideration be given, in planning future evaluations of this project and similar Title I projects, to utilizing personnel from the disadvantaged community in which Title I projects are being carried on. This recommendation contemplates that provision be made for adequate and appropriate training and supervision.

APPENDIX A

FIVE CATEGORIES OF CRITERIA SUGGESTED BY EDWARD A. SUCHMAN FOR EVALUATION OF SUCCESS OR FAILURE OF A PROGRAM

Suchman suggests five categories of criteria according to which the success or failure of a program may be evaluated:[1]

1. Effort. This involves the quantity and quality of activity that takes place. The questions sought to be answered are "What was done?" and "How well was it done?" The assessment here is of input rather than output. In many ways this is the easiest criterion to satisfy in an evaluation.

2. Performance. This is a measurement or assessment of the results of the effort rather than of the effort itself. In satisfying this criterion, a clear statement of the objective is required in order to answer such questions as: "How much is accomplished relative to an immediate goal?"; "Did any change occur?"; "Was the change the one intended?"

The difference between this criterion and the previous one may be illustrated by assuming that a large number of children were given remedial reading instruction. In this case, the criterion of effort would be met. The criterion of performance, however, asks whether the services were given properly and effectively.

3. Adequacy of performance. This criterion refers to the degree to which effective performance is adequate to the total amount of need. Another way of stating this is to ask how effective a program has been in terms of the denominator of total need. For example, a program that is 75 per cent effective and deals with one hundred children would have an impact on 75 children. But a program that is ten per cent effective but deals with a thousand children would have an impact on 100 children.

As Suchman says: "The criterion of adequacy needs to be tempered by a realistic awareness of what is possible at any given state of knowledge and of available resources. There is a tendency in service programs to think in terms of total effectiveness. Much less ambitious goals must be set, in general, for judging adequacy. The notion of increments of progress toward the 'idealized' objective has to be built into the concept of adequacy."

4. Efficiency. The follow-up question to adequacy of performance or "Does it work?" is: "Is there any better way to attain the same results?" Here, the relative worth of the program being

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[1] Suchman, Edward A., Evaluative Research. (New York: Russell Sage Foundation, 1967.)

examined is compared with alternative procedures. Concerned here is a judgment as to whether cost is justified or could be reduced, for example, by using less highly trained personnel, or reciprocally whether more highly trained personnel could accomplish more at a lower ultimate cost. Illustrative of this phase of evaluation is the investigation of the possibility of using newly developed technologies.

5. Process. This is an examination of "how" and "why" a program does or does not work. There are four phases in this kind of analysis.

a. What are the attributes of the program that make it more or less successful? What are the specific causes of success or failure within the program itself? In some programs, for example, a poor personnel appointment system may negate its otherwise successful operation.

b. Who are the recipients of the program? Who is the most affected by it? Who has been reached and who was not reached who should have been?

c. What are the conditions making the program more or less successful if carried on at different locales or under different circumstances?

d. Lastly, we examine what the effects of the program are. What unintentional side effects were there? What is the duration of these effects? Are the effects measured in terms of cognition, attitude, or behavior?

APPENDIX B

List of Instruments

Speech Clinic Record	B2
Teacher's Evaluation of Language Skill	B3
Letters to Parents:	
Concerning After-School Speech Clinic*	B5
Requesting Attendance at Meeting	B6
Requesting Individual Conference*	B9
Form for Recording Staff and Parent Conferences	B11
Form for Recording Pupils on Waiting List	B12
Inventory of Speech Material	B13
Form for Recording Results of Photo-Articulation Test (PAT)	B15
Form for Recording Speech Therapy Program	B16
Form for Recording Progress in Speech Improvement	B19
Ninety-Millimeter Scale for Speech and Language	B20

*Note: Samples of letters written in Spanish and Yiddish have not been included in this Appendix

LAST NAME (PRINT)	FIRST NAME	ADDRESS	BOROUGH	CUMULATIVE SPEECH CLINIC RECORD BUREAU FOR SPEECH IMPROVEMENT BOARD OF EDUCATION-CITY OF NEW YORK	
FATHER'S NAME	MOTHER'S NAME	GUARDIAN	DATE OF BIRTH		BIRTH PLACE

SPEECH CLINIC RECORD

(CONFIDENTIAL)

SCHOOL	OFF. CLASS	SP. CLASS ENTR. DATE	SPEECH DEFECT *			NO. WKS.	PDS. WK.	PROGRESS (✓) *			RECOMMENDATIONS *			SPEECH TEACHER	END DATE
			CLASSIF.	TYPE	DEGREE			POOR	FAIR	GOOD	DISCHARGE	CONTINUE	FOLLOW UP		

SOUNDS MISPRONOUNCED	t=d																									
CORRECTED (CHECK)	✓																									

REMARKS	TEACHER	DATE	REMARKS	TEACHER	DATE

* SPEECH DEFECT

* PROGRESS AND RECOMMENDATIONS

LAST NAME (PRINT)	FIRST NAME	ADDRESS	BOROUGH	CUMULATIVE SPEECH CLINIC RECORD BUREAU FOR SPEECH IMPROVEMENT BOARD OF EDUCATION-CITY OF NEW YORK
FATHER'S NAME	MOTHER'S NAME	GUARDIAN	DATE OF BIRTH	BIRTH PLACE

SPEECH CLINIC RECORD

(CONFIDENTIAL)

SCHOOL	OFF. CLASS	SP. CLASS ENTR. DATE	SPEECH DEFECT *			NO. WKS.	PDS. WK.	PROGRESS (✓)*			RECOMMENDATIONS *			SPEECH TEACHER	END DATE
			CLASSIF.	TYPE	DEGREE			POOR	FAIR	GOOD	DISCHARGE	CONTINUE	FOLLOW UP		
SOUNDS MISPRONOUNCED	s=d														
CORRECTED (CHECK)	✓														

REMARKS	TEACHER	DATE	REMARKS	TEACHER	DATE

SELECTIONS FOR MAKING ENTRIES

* SPEECH DEFECT

CLASSIF:— STAM., SPASTIC LISP., VOICE, FOR. AC., CL. PAL., LALLING., HARD OF HEAR., (H. OF H.), CHOREATIC (CHOR.) MISC. ARTIC. (ART.)

TYPE: — LING. PROT (L.P.) LAT. EMISSION (L.E.) NASAL EMISSION (N.E.) HOARSE NASAL, HIGH PITCHED (H.P.) ETC., GERMAN, SPANISH, ETC.

DEGREE — MINOR OR SERIOUS (SER.) (OVER)

* PROGRESS AND RECOMMENDATIONS

PROGRESS: — (CHECK) POOR = 30-60% — FAIR = 65-75% — GOOD = 80-100%

DISCHARGE. — IMPROVED (IMP.) CORRECTED (COR.) UNIMPROVED (UN.MP.)

CONTINUE: — SPECIFY TYPE OF CLINIC RECOMMENDED AND NO. OF PDS. PER WEEK
E.G. LISP-L E 3

FOLLOW UP. — ENTER DATE (MONTH-YEAR) FOR RECOMMENDED CHECK UP.

BOARD OF EDUCATION OF THE CITY OF NEW YORK
BUREAU OF EDUCATIONAL RESEARCH

TEACHER'S EVALUATION OF LANGUAGE SKILL

School_____ Boro_____ Teacher_____

Name of Pupil_____ Date of Rating _____
(Last name first) (month) (year)

Your help on the following points will be greatly appreciated. In rating each item, disregard your ratings for that pupil on every other item; try not to let general impressions color your judgments about specific aspects of the pupil's language. If you wish to explain or illustrate any of your ratings, or feel that the child you are rating presents some unusual speech problems, a section for your comments is provided at the end of the scale.

Rating Scale:
Number 1 is LOW and is described by the words at the left-hand side of the scale.

The numbers 2, 3 and 4 represent degrees between HIGH (5) and LOW (1)

Number 5 is HIGH and is described by the words at the right-hand side of the scale.

PLEASE CHECK BY ENCIRCLING THE NUMBER APPROPRIATE IN EACH CASE.

EXAMPLE: If you consider a pupil just slightly better than average on a certain skill, circle the number four, as follows: 1 2 3 (4) 5

		LOW		HIGH
1.	Skill in communication	Incompetent with all language; no awareness of listeners; speaks without trying to evoke understanding from others; halting pace of words and inflection of voice not adjusted to listeners; writes like an illiterate person.	1 2 3 4 5	uses language in any form with power, proficiency, and pleasure; adjusts pace of words and inflection to listeners; uses an "imparting tone;" is aware of need to make self understood; writes competently with a sense of style.
2.	Organization, purpose and point	rambles, no sense of order or of getting to the point; rattles on without purpose; cannot tell a story or express ideas in a suitable sequence	1 2 3 4 5	plans what is said; gets to the point; has control of language; can tell a story or express ideas in a suitable sequence
3.	Wealth of ideas	seldom expresses an idea, appears dull and unimaginative; doesn't originate suggestions or plans	1 2 3 4 5	expresses ideas on many different topics; makes suggestions on what to do and how to carry out class plans; shows imagination and creativity in many ways

4.	Fluency	seldom talks; exception- ally quiet; needs to be prompted to talk; overly laconic	1 2 3 4 5	talks freely, fluently, and easil also talks brillian and effectively
5.	Vocabulary	uses a meager vocabulary far below that of most pupils this age; in- articulate, mute	1 2 3 4 5	uses a rich variety of words; has an exceptionally large effective, and grow vocabulary; speaks fluently with vocab lary suited to list
6.	Quality of listening	inattentive, easily dis- tracted; seldom attends to the spoken language of others; doesn't listen for relationships or note how main ideas control illustra- tions or subordinate ideas	1 2 3 4 5	superior attentiven and understanding o spoken language; a creative listener

COMMENTS: (use back of sheet if necessary)

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF STATE AND FEDERALLY ASSISTED PROGRAMS
ESEA TITLE I - NON PUBLIC SCHOOLS
SPEECH THERAPY
480 Pacific Street
Bklyn., N.Y. 11217

NON PUBLIC SCHOOL _____

ADDRESS _____

Dear Parent:

We are pleased to inform you that federal funds have made it possible to establish an after-school Speech Clinic Program.

Your child, _____, in the opinion of our speech teacher, would benefit from this extra service.

The clinic will be conducted from October through May at _____. Children will come to the speech clinic for instruction 2 days a week (Mond. and Wed.) (Tues. and Thurs.) for an individual one half hour therapy session. Parents are responsible for transportation to and from the school.

If you would like your child to attend, please sign below and return this form to our school. When your child is accepted, you will receive a letter from the Bureau for Speech Improvement informing you of when and where to report.

Sincerely yours,

_____
Principal

- -

Dear Principal,

I would like to enroll my child in the after-school Speech Clinic. I understand that I will be responsible for my child's transportation to and from the Speech Center.

Parent's Signature _____
Address _____
_____ ZIP _____

Child's name _____
School _____ Class _____

BOARD OF EDUCATION OF THE CITY OF NEW YORK
BUREAU FOR SPEECH IMPROVEMENT

_____
Date

Dear Parents,

We are happy to tell you that your school provides a program of speech correction services to help pupils overcome speech and language problems.

In our survey we found that _____ _____ was in need of help with his speech. He (she) has been scheduled for class on _____ at _____.

A conference for all parents will be scheduled soon. In the meantime if you WISH TO TALK TO ME, PLEASE FILL OUT THE FORM BELOW AND RETURN IT TO ME.

I look forward to working with your child.

Thank you for your cooperation.

Sincerely,

_____

_____
date

Dear _____,

Yes, I would like to have a conference with you to discuss my child's speech with you.

NAME: _____

ADDRESS: _____

TELEPHONE: _____

B7

Board of Education of the City of New York
Bureau for Speech Improvement

Date _____

ડૉ૦ ____

કૃપયા નિમ્નલિખિત રોગી કો વાણી ચિકિત્સા કે લિએ ભેજને કા કષ્ટ કરેં.

નામ: _____ રોગી સ્વયં હી અપને વિદ્યાર્થીકા હોને કા દાવા કરે

પતા _____ ,ફોન _____

,જન્મ તારીખ _____ :નામાંકન

_____ :અભિભાવક

પાઠકેત _____

ધ્યાનાકર્ષણ પ્રેમજ વજા ખ્ય કોરા પ્યાર કોય પ્રાપ્તાયા ટિ્ય ખ્યાલ ટિરા ટ્યાર ટ્યાર ,હો
ખ્યાલ _____
.વર્ગાષ્ક _____

B8

BOARD OF EDUCATION OF THE CITY OF NEW YORK
BUREAU FOR SPEECH IMPROVEMENT

_____
Telefono de la escuela

_____
Fecha

Estimados Padres:

Un estudio cuidadoso del trabajo de su hijo(a) nos indica que el(ella) podría beneficiarse grademente tomando clases en el perfeccionamiento de la pronunciación inglesa. Por esta razón le he asignado para una clase el día _____ a las _____.

Desería contar con su ayuda para hacer mi trabajo más efectivo. ¿Podrían ustedes venír el día _____ a las _____ y ofrecer información y consejo que nos ayude a relizar nuestro propósito? Si Esta fecha no es conveniente, podremos convenir en otra fecha.

Yo estoy en la escuela de su niño(a) todos los _____.

Espero poder ayudar a su niño(a).

Gracias por su cooperación.

Sinceramente,

_____

Marque el espacio correspondiente en el talonario y envíelo al maestra especial de inglés (Speech Teacher).

Estimado _____:

Asistiré al la entrevista con usted el día _____ a las _____.

Si no puede asistir este día, indique el día y hora en que puede venir.

Nombre _____

Direccíon _____

Telefono _____

B9

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF STATE AND FEDERALLY ASSISTED PROGRAMS
ESEA TITLE I - NON-PUBLIC SCHOOLS
SPEECH THERAPY
480 Pacific Street
Brooklyn, New York

SCHOOL_____
DATE_____

Dear Mrs._____:

I would like to discuss your child's progress in speech class with you.

Kindly indicate on the form below if you will be able to attend_____on_____at_____ o'clock.

I am looking forward to meeting with you at this time.

Sincerely yours,

_____
Speech Teacher

Please check and return

I shall attend_____

I shall not attend_____

SIGNED_____

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF STATE AND FEDERALLY ASSISTED PROGRAMS
ESEA TITLE I - NON PUBLIC SCHOOLS
SPEECH THERAPY
480 Pacific Street
Brooklyn, New York

_____
Date

My dear Mr/Miss _____:

(Pupil's name) _____ has been attending our special speech class, and I am anxious that we should work together to improve his/her speech.

Will you please plan to call at the school on _____ at _____ O'clock to talk this matter over with me.

Sincerely yours,

_____
Teacher of Speech Improvement

Approved:

_____
Principal

In accordance with the school regulations, please inquire at the office of the principal before visiting the class room.

BOARD OF EDUCATION - CITY OF NEW YORK
OFFICE OF STATE AND FEDERALLY ASSISTED PROGRAMS
SPEECH THERAPY
480 Pacific Street
Brooklyn, New York

STAFF AND PARENT

CONFERENCE

Date:

Teacher:

Schools	Date of Staff Meeting	Number Attending	Date of Parent Workshop	Number Attending

W A I T I N G L I S T

Teacher_____ Date_____

School_____ Borough _____ # of Children _____

PUPIL'S NAME	DEFECT	GRADE

B12

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF SPEECH THERAPY

INVENTORY OF SPEECH MATERIALS
1967-68

N.P.S._____ SPEECH TEACHER_____ PLACE WHERE MATERIALS ARE KEPT_____ NAME OF PERSON INFORMED_____

__1. Copy of program

__2. Roll Book

__3. Duplicate of office list

__4. Record cards

__5. Mirrors - number ___

__6. (A) Visual Aid Sets (incl.word picture cards, voice chart, faces, wigs, etc.)
___ (B) Gurren Diagram Charts
___ (C) Steengrafe Charts

__7. Stapler

__8. Metal file box

__9. Two door metal cabinet

_10. Tape recorder

_11. Echorder

_12. Supplies and Books

* Code for marking

_Please check items at school

B13

1967-68

___Construction Paper, Assorted colors
___Felt writer - 8 colors
___7" Shears, full nickel finish
___Composition Books 3/8" ruling; 8½ x 11"
___Kraft envelopes
___Easel, Flannel Board
___Family members - Hand Puppets
___Family members - Hand Puppets, negro
___Telephone
___Duplicating Fluid
___Rexograph Master sets 8½ x 11"
___Box, File metal
___Mirrors - Metal Tarnish Proof
___Rexograph Paper White 8½ x 11 sub #20
___Speech Teacher Record Book
___Speech Clinic Record Cards
___Pencils, Med. #2
___Desk Stapler & Tacker
___Staples, standard
___Oak Tag 9 x 14
___Magnetic Recording Tapes, Plastic Base
___Empty Plastic Reel with box for Magnetic Recording Tape

Matthews, et al, Best Speech Series

___My Sound Book G
___My Sound Book K
___My Sound Book L
___My Sound Book s
___My Sound Book TH
___Stennett: Workbook for Stutterers (Grade 5-12)
___Abney-Choral Speaking Arrangements for Upper Grades
___G Manual for Effective Use
___K Manual for Effective Use
___L Manual for Effective Use
___S Manual for Effective Use
___Sh Manual for Effective Use
___Th Manual for Effective Use
___Nemoy, Davis; Correction of Defective Consonant Sounds
___Nemoy; Speech Correction Through Story Telling Units
___Pendergast et al Photo Artic. Test Unit 1965
___Extra Pad
___Choral Speaking in Fun - Raubicheck
___Talking Time - Scott Thompson
___Speech Ways - Scott Thompson
___Visual Aids Set (Word Picture Cards, Faces, wigs, Voice Chart)
___Schoolfield, Lucille D.; Better Speech & Better Reading (2 copies)
___Gray eta al - Speech Imp., Cards K-3 Sets A B C
___Speech Records Blanks
___Russell-Russell; Listening Aids Through the Grades
___Listening Time Records
___Edith Segal - Come with Me
___Edith Segal - Be My Friend
___Jean Utley - What's Its Name

Others

PAT RECORDING SHEET

Name _____ Age ___ Grade ___ School _____ Date _____

Key: Omission (-); substitution (write phonetic symbol of sound substituted); severity of distortion (D1) (D2) (D3); ability to imitate (circle sound or error).

Sound	Photograph	1	2	3	Vowels, Diph.		.	Comments
s	saw, pencil, house				aʊ	house		
s bl	spoon, skates, stars							
z	zipper, scissors, keys							
ʃ	shoe, station, fish				u	shoe		
tʃ	chair, matches, sandwich							
dʒ	jars, angels, orange							
t	table, potatoes, hat				æ	hat		
d	dog, ladder, bed				ɔ	dog		
n	nails, bananas, can				ə	bananas		
l	lamp, balloons, bell				ɛ	bell		
l bl	blocks, clock, flag				ɑ	blocks		
θ	thumb, toothbrush, teeth				i	teeth		
r	radio, carrots, car							
r bl	brush, crayons, train				e	train		
k	cat, crackers, cake				ɚ-ə	crackers		
g	gun, wagon, egg				ʌ	gun		
f	fork, elephant, knife							
v	vacuum, TV, stove				ju	vacuum		
p	pipe, apples, cup				aɪ	pipe		
b	book, baby, bathtub				ʊ	book		
m	monkey, hammer, comb				o	comb		
w-hw	witch, flowers, whistle				ɪ	witch		
ð	this, that, feathers, bathe							
h-ŋ	hanger, hanger, swing							
j	yes, thank you							
ʒ	measure, beige				ɔɪ	boy		
	(story)				ɝ-ɜ	bird		

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF STATE AND FEDERALLY ASSISTED PROGRAMS
ESEA TITLE I - NON PUBLIC SCHOOLS
480 Pacific Street
Brooklyn, New York

School
Address
Borough

Principal
Telephone
February 1, 1967

SPEECH THERAPY PROGRAM

GROUP I Time	Name	Defect	Grade	Progress**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

GROUP III Time	Name	Defect	Grade	Progress**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

GROUP II Time	Name	Defect	Grade	Progress**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

GROUP IV Time	Name	Defect	Grade	Progress**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

**D.C. = Dis. Corr.
D.M. = Dis. moved
D.O. = Dis. other reason
I. = Improved
N.I. = Not improved (reason)

2

GROUP V	Name	Defect	Grade	Progress
Time 1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

GROUP VIII	Name	Defect	Grade	Progress
Time 1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

GROUP VI	
Time 1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

GROUP IX	
Time 1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

NAME	DEFECT	GRADE	PROGRESS

GROUP X.

Time 1
2
3
4
5
6
7
8
9
10

NAMES OF CHILDREN ENROLLED IN OCTOBER 1966 AND NOT LISTED ABOVE.

NAME	DEFECT	GRADE	DIS. CORR.	DIS MOVED	DIS OTHER

REFERRALS

I. Name, grade, problem
   a. to nurse
   b. to P.S. 47
   c. to guidance counselor

II. To central office - indicate number only
   a. to Dr. Daly
   b. for central office diagnosis
   c. for other

DATES:

Parents meeting:
Staff meeting:

OFFICE OF STATE AND FEDERALLY ASSISTED PROGRAMS
OFFICE OF SPEECH THERAPY

_____ IS ENROLLED IN SPEECH IMPROVEMENT CLASS TO IMPROVE HIS:

Voice, rate of speech, rhythm, sound(s)_____

	April	June
I Progress:		
a. Improved		
b. Not improved		
c. Comment		
II Speaking Skills:		
a. Shows more confidence in speaking situations		
b. Participates more in speaking situations		
c. More fluent in speaking situations		
III Work Habits:		
a. Comes prepared		
1. notebook		
2. homework assignments		
IV Cooperation		
a. Works well with other children		
b. Cooperates with teacher		
c. Shows a desire to improve speech through own efforts		
V Comments		

	April	June
Teacher:	_____	_____
Parent:	_____	_____

NINETY-MILLIMETER SCALE FOR SPEECH AND LANGUAGE

VOICE

Pitch — Poor | Adequate Average | Excellent

Intensity — Poor | Adequate | Excellent

Quality — Poor | Adequate | Excellent

ARTICULATION

Sound Substitutions — Many | Average Amount | None

Distortions — Many | Average Amount | None

Omissions — Many | Average Amount | None

RHYTHM

Rate — Poor | Adequate | Excellent

Stress — Poor | Adequate | Excellent

Fluency — Poor | Adequate | Excellent

LANGUAGE

Oral Reading — Poor | Adequate | Excellent

Choice of Words — Poor | Adequate | Excellent

Fluency of Ideas — Poor | Adequate | Excellent

INTELLIGIBILITY

Poor | Adequate | Excellent

APPENDIX C

Staff List

Dr. Sam Duker
Professor of Education
Director of Testing and Research
Brooklyn College, Brooklyn, N.Y.

Dr. Samuel Abrahamsen
Assistant Professor, Department of Education
Brooklyn College, Brooklyn, N.Y.

Miss Felice Bernstein
Lecturer, Office of Testing and Research
Brooklyn College, Brooklyn, N.Y.

Mr. Martin Edelman
Clinical Assistant, Office of Testing and Research
Brooklyn College, Brooklyn, New York

Dr. Leola Horowitz
Professor, Speech and Dramatic Art
Director, Speech and Hearing Center
Adelphi College

Dr. Charles Long
Associate Professor, Department of Education
Brooklyn College, Brooklyn, New York

Dr. Ray Middleton
Assistant Professor, Department of Education
Brooklyn College, Brooklyn, New York

Mr. Sterling Rogers
Lecturer, Department of Education
Brooklyn College, Brooklyn, N.Y.

Dr. Hyman Sardy
Assistant Professor, Department of Economics
Brooklyn College, Brooklyn, New York

Dr. Jonathan Varty
Associate Professor, Department of Education
Brooklyn College, Brooklyn, N. Y.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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CENTER FOR URBAN EDUCATION
EDUCATIONAL RESEARCH COMMITTEE
ESEA TITLE I EVALUATIONS

SUMMARY REPORT

Date: October 1968

Project: (1768) Speech Therapy for Disadvantaged Pupils in Non-Public Schools

Evaluation Director: Sam Duker
Professor of Education
Director of Testing and Research
Brooklyn College, Brooklyn, N.Y.

PROGRAM REFERENCE SERVICE
CENTER FOR URBAN EDUCATION

SPEECH THERAPY FOR DISADVANTAGED PUPILS IN NONPUBLIC SCHOOLS

I

DESCRIPTION OF THE PROJECT

This project, a recycle of similar projects carried on during the past two school years, was designed to provide speech therapy for educationally disadvantaged pupils in nonpublic schools who have the additional handicap of defective speech. Defective speech in the sense used here referred to speech anomalies that interfered with communication, and were severe enough to cause anxiety for the child and render him conspicuous. Such problems included stuttering, voice disorders, cleft palate, lisping, lalling, and other articulatory defects.

The speech therapy was provided by personnel selected and licensed by the New York City Board of Education. Recipients of this service were 7,385 children who met weekly for one-half hour. The therapy groups were small, averaging five to seven pupils, but never exceeding ten. The project ran from September 1967 to June 1968, with speech instruction beginning in October.

The aims of the project, as stated in the Board of Education's proposal, were:

1. To improve the children's verbal functioning.

2. To improve classroom performance in other skill areas beyond usual expectations.

3. To improve the children's self-image.

The 188 nonpublic schools serviced by this project are located in all five boroughs of New York City. These schools were sponsored by 1) the Catholic Archdiocese of New York, 2) the Catholic Diocese of Brooklyn, 3) the Hebrew Day Schools, 4) the Greek Orthodox Church, 5) the Episcopalian Church, and 6) the Lutheran Church. The total number of children from kindergarten through the twelfth grade enrolled in speech therapy was 7,385.

Project personnel provided by the New York City Board of Education consisted of 42 teachers (filling 27.6 corrective speech teaching positions) in addition to one general supervisor and one field supervisor.

II

EVALUATION DESIGN

The procedures for the evaluation consisted of:

1. School observations carried on by experienced personnel from the faculty of the Department of Education of Brooklyn College, of the City University of New York.

2. Examination of pupils' personnel records kept by the schools in which they were enrolled.

3. Interviews with the New York City Board of Education personnel supervising this project.

4. Examination and analysis of a sample of the records kept by the speech corrective teachers. Of this sample of 183 pupils, there was available in 160 instances, a tape recording of the pupil's speech at or near the beginning of the school year, as well as at or near the end of the academic year, after he had received speech therapy provided for in this project. These tape recordings were analyzed and evaluated by an experienced speech therapist.

5. Interviews with a sample of the parents of children partaking in the speech therapy were conducted by a staff of four recruited from the disadvantaged communities in which the schools were located. These interviewers were given special training and close supervision.

III

FINDINGS

On the basis of the activities described in the foregoing section of this summary it was found that:

1. The New York City Board of Education staff recruited to administer the speech therapy was well qualified, conscientious, and dedicated.

2. Speech therapy sessions were held once a week for thirty communities in groups of five to ten pupils.

3. The inservice training of the corrective speech teachers carried on through the year was useful and effective.

4. The efforts to inform nonpublic school teachers and administrators of the nature, purposes and procedures of the project were effectively carried out.

5. The effort to involve parents in the program by informing them in groups as well as individually of the nature, purposes, and procedures of the program was effectively carried out.

6. Evidence indicates that those pupils whose records were examined in detail, and particularly those for whom tape recordings were available, did improve their speech patterns through the pericd in which speech therapy was administered.

7. The physical space in which the speech therapy work was carried on was, in a substantial number of cases, inadequate and inappropriate.

8. The records of the speech therapists concerning pupils' progress were not kept with the accuracy and care desirable.

IV

RECOMMENDATIONS

The following recommendations were made as a result of the evaluation:

1. The project should be recycled.

2. In recycling the project consideration should be given to the desirability of providing more intensive services for longer periods of time to fewer pupils as a means of increasing improvement for individual children.

3. Tape recordings of children's speech, both before and after therapy, should be made for all children involved.

4. Greater care should be exercised by speech therapists in keeping records of pupil progress.

5. The present effort to involve parents as well as the personnel of the nonpublic schools should be continued.

6. The utilization of personnel drawn from the disadvantaged communities in which Title I projects are being carried on should be planned for in future evaluations of this and similar Title I projects. This recommendation contemplates that adequate plans be made for appropriate training and supervision of such personnel.